

**THE LEVEL OF FORMATION OF PHYSICAL FITNESS OF
15-YEAR-OLD BOYS SPECIALIZING IN LONG JUMP IN A
GENERAL EDUCATION SCHOOL SPORTS SECTION**

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Annotatsiya. *Ushbu maqolada umumta’lim maktab sport seksiyasida shug‘ullanuvchi uzunlikka sakrovchilarning jismoniy tayyorgarligini shakllanish darajasi ilmiy jihatdan tahlil qilingan. Unda umumiy va maxsus jismoniy tayyorgarlikning o‘zaro bog‘liqligi, ularning mashg‘ulot jarayonida tutgan o‘rni muhimligi haqida yoritilgan. Tadqiqot natijalari jismoniy sifatlarni samarali rivojlantirish va sport natijalarini oshirishda ilmiy yondashuvning ahamiyatini ko‘rsatadi.*

Kalit so‘zlar: *umumta’lim maktabi o‘quvchilari, jismoniy rivojlanish, jismoniy tayyorgarlik, umumiy jismoniy tayyorgarlik, maxsus jismoniy tayyorgarlik, uzunlikka sakrash, sport mashg‘uloti, antropometrik ko‘rsatkichlar, jismoniy sifatlar, o‘quvchi-yoshlar, sport tayyorgarligi.*

Аннотация. *В данной статье научно проанализирован уровень формирования физической подготовленности прыгунов в длину, занимающихся в спортивных секциях общеобразовательной школы. Рассмотрена взаимосвязь общей и специальной физической подготовки, а также их значение в процессе тренировок. Результаты исследования показывают важность научного подхода для эффективного развития физических качеств и повышения спортивных результатов.*

Ключевые слова: *учащиеся общеобразовательной школы, физическое развитие, физическая подготовка, общая физическая*

подготовка, специальная физическая подготовка, прыжок в длину, спортивное занятие, антропометрические показатели, физические качества, учащиеся, спортивная подготовленность.

Abstract. *This article scientifically analyzes the level of physical fitness development of long jump athletes training in general education school sports sections. The relationship between general and special physical training, their role in the training process, and age-related physiological characteristics of schoolchildren are examined. The study results highlight the importance of a scientific approach in the effective development of physical qualities and improvement of athletic performance.*

Keywords: *physical development, physical fitness, general physical training, special physical training, long jump, sports training, anthropometric indicators, physical qualities, school-aged youth, athletic preparation..*

Relevance of the Study. At present, the effective organization of physical education and sports training in general education schools—particularly the scientifically grounded development of physical preparedness among students engaged in athletics sections—has become a matter of significant importance. The general, vocational, and sport-oriented directions of physical education are closely interconnected, and their integration directly influences the physical development and спортив performance outcomes of students who participate regularly in sports activities. Practical experience indicates that, in school sports sections, insufficient consideration of age-related and individual characteristics in planning the physical training of long jump students, as well as the lack of a scientifically substantiated balance between general and special physical training, in some cases leads to a decline in training effectiveness [1]. Therefore, the scientific investigation of the level of formation of physical preparedness of long jump students in general education school athletics sections, as well as the identification of effective ways to enhance it, constitutes a relevant and pressing research problem.

Research Objective. To determine the level of physical preparedness of students specializing in the long jump who are engaged in athletics sections in general education schools.

Research Objectives (Tasks):

- To analyze scientific and methodological literature related to the physical preparedness of students specializing in the long jump;
- To determine the baseline level of key indicators of special physical preparedness essential for long jump performance;
- To analyze the obtained baseline results and formulate scientific conclusions for planning subsequent experimental and pedagogical interventions.

Introduction

In physical education, there are three primary directions, which form the foundation of human physical training: general physical preparedness, vocational (or professional) physical preparedness, and sport-specific training. These directions are closely interrelated and play a particularly important role in the physical development of students engaged in regular sports activities.

General physical preparedness aims to strengthen health, broadly develop movement skills and competencies, and provide a foundation for subsequent specialized training. It focuses on the development of key physical qualities, including strength, speed, endurance, flexibility, and agility. The process of general physical preparedness involves the comprehensive use of all types of physical exercises, the health-promoting forces of nature, and hygienic factors. This process is primarily implemented through the school physical education system, mass sports events, and individual training sessions [3].

One of the key aspects of teaching motor activity is the formation of a system of movement skills. This system of motor activity largely determines the level and nature of students' physical preparedness. Therefore, school age represents the most favorable period for developing motor skills. At this age,

children exhibit high flexibility, rapid excitability of the nervous system, and an increased capacity for forming conditioned reflexes. By the age of 14–15, the development of movement analyzers reaches its normative level, and by the time students complete school, they acquire movement skills of varying complexity [2].

Sports training encompasses physical preparedness, as well as functional, technical, tactical, and psychological components; however, the training process primarily involves both general and specialized physical preparedness. During general physical preparedness, the body's organs, systems, and functions are developed comprehensively, while conditions are created to align with the specific demands of the sport. Specialized physical preparedness, in turn, is aimed at developing the physical qualities and abilities required for a particular sport—in this case, long jump—as well as forming the technical and tactical knowledge, skills, and competencies necessary for effective performance [4].

General and specialized physical preparedness are complementary processes that cannot be considered in isolation, as they are intrinsically interconnected. During sports training, the volume of general physical preparedness gradually decreases as the athlete's skill level increases; however, this reduction is compensated for by specialized training. In the initial stages of the training cycle, general physical preparedness predominates, whereas in later stages and during the competition period, specialized physical preparedness assumes a leading role [8].

It should also be emphasized that improper planning of physical loads may temporarily enhance sports performance, but in some cases, it can lead to subtle negative changes in the organism [7]. Therefore, the training process should be organized on a scientific basis, taking into account the age and individual characteristics of the trainee.

Research Results and Discussion.

Possessing comprehensive general physical preparedness ensures high efficiency in the labor, military, and social activities of individuals [6]. People with well-developed physical qualities and essential movement and work skills are able to master various types of activities quickly and effectively. From this perspective, the systematic and planned development of physical preparedness contributes to the overall harmonious development of an individual as a person [5].

Therefore, special attention in this study was given to enhancing the physical preparedness of students specializing in the long jump who participate in athletics sections of general education schools.

During the pedagogical experiment, the initial assessment of the students' physical preparedness was conducted using pre-selected specialized tests prior to the intervention. The obtained results are presented in Tables 1–2. These tables analyze the initial levels of specialized physical preparedness of 15-year-old long jump students belonging to both the experimental and control groups at the beginning of the study.

1st table

Initial Dynamics of Specialized Physical Preparedness of Long Jump Students in the Experimental Group (n = 12).

No	Name and Surname	30 m Sprint from Start (s)	60 m Sprint (s)	150 m Sprint (s)	Standing Long Jump (m)	Standing Five-Step Jump (m)	Throw (2 kg ball) (m)	Running Long Jump (m)	three-step jump from running line
1	M.B	4.35	9.24	22.33	2.08	9.78	6.11	4.98	9
2	CH.B	4.48	9.28	24.64	1.98	9.55	6.9	4.87	8.87
3	M.S	4.4	9.25	24.85	1.95	9.61	6.65	4.95	8.9

4	A.A	4.5	9.42	24.97	1.98	9.51	6.6	4.82	8.89
5	I.A	4.6	9.45	25.09	1.97	9.45	6.4	4.58	8.88
6	A.A	4.66	9.58	25.22	1.98	9.35	6.25	4.28	8.85
7	A.D	4.35	9.25	22.58	2.04	9.7	6.35	5.01	9.05
8	O.A	4.45	9.56	24.02	2.02	9.37	6.22	4.66	8.95
9	A.A	4.55	9.7	25.03	1.95	9.32	6.3	4.29	8.9
10	E.S	4.58	9.45	25.11	1.97	9.41	6.25	4.45	8.85
11	X.E	4.35	9.24	24.35	2.06	9.73	6.21	4.98	9.25
12	M.J	4.45	9.43	24.94	1.94	9.64	6.42	4.21	8.91
$\bar{X}$		4.48	9.40	24.43	1.99	9.54	6.39	4.67	8.94
σ		0.10	0.16	0.98	0.05	0.16	0.23	0.30	0.11
V, %		2.34	1.65	4.03	2.30	1.65	3.54	6.49	1.28

In the experimental group presented in Table 1, these indicators were similar to those of the control group. The average times for sprinting were 4.48 seconds for 30 m, 9.40 seconds for 60 m, and 24.43 seconds for 150 m. The results for jumping exercises were as follows: standing long jump 1.99 m, five-step jump 9.54 m, shot put (2 kg) 6.39 sm, running long jump 4.67 sm, and three-step jump 8.94 sm from running line

2nd table

Initial Dynamics of Specialized Physical Preparedness of Long Jump Athletes in the Control Group (n = 12).

No	Name and Surname	30 m Sprint from Start (s)	60 m Sprint (s)	150 m Sprint (s)	Standing Long Jump (m)	Standing Five-Step Jump (m)	Throw (2 kg ball) (m)	Running Long Jump (m)	three-step jump from running line
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1	S.J	4.4	9.25	22.21	2.01	9.65	6.8	4.98	9.12
2	Q.I	4.52	9.4	25.54	1.91	9.54	6.54	4.58	9.09
3	I.J	4.5	9.39	24.25	1.9	9.58	6.13	4.6	9.08
4	I.T	4.55	9.42	24.4	1.93	9.51	6.5	4.58	8.55
5	O'.A	4.53	9.41	24.35	1.94	9.53	6.39	4.59	9.01
6	M.H	4.7	9.43	25.02	1.88	9.45	6.21	4.4	8.41
7	G'.M	4.6	9.44	25.01	1.9	9.4	6.15	4.43	8.46
8	M.S	4.5	9.42	24.51	1.89	9.59	6.12	4.52	8.91
9	M.S	4.56	9.44	24.55	1.96	9.49	6.24	4.48	9.01
10	SH.S	4.56	9.47	24.3	1.94	9.51	6.18	4.5	8.95
11	B.A	4.53	9.41	24.34	1.95	9.56	6.2	4.68	9.02
12	Q.B	4.34	9.42	24.38	2.05	9.79	6.82	5.03	9.18
$\bar{X}$		4.52	9.41	24.41	1.94	9.55	6.36	4.61	8.90
σ		0.09	0.05	0.79	0.05	0.10	0.25	0.20	0.27
V, %		2.00	0.57	3.25	2.59	1.05	3.99	4.30	3.02

In the control group presented in Table 2, the average sprint times were 4.52 seconds for 30 m, 9.41 seconds for 60 m, and 24.41 seconds for 150 m. In the jumping exercises, the results were as follows: standing long jump 1.94 m, five-step jump 9.55 m, shot put (2 kg) 6.36 m, running long jump 4.61 m, and three-step jump 8.94 m from running line.

The low coefficients of variation observed across many indicators indicate that the specialized physical preparedness in both groups was relatively stable and similarly developed. These results confirm that there were no significant differences between the experimental and control groups at the beginning of the study, thereby enabling accurate and objective assessment of changes observed during the pedagogical experiment.

Conclusion

In conclusion, the specialized physical preparedness indicators of long jump students participating in school athletics sections were found to be generally stable and similarly developed in both the experimental and control groups at the beginning of the study. This finding indicates the absence of significant differences between the groups in terms of key specialized training parameters, and also confirms the reliability and objectivity of the obtained data. Moreover, it provides a necessary foundation for the pedagogical experiment, allowing for precise and impartial evaluation of subsequent changes in physical preparedness levels or the development of specific skills during further training and analysis.

The data obtained through the designated specialized tests during the pedagogical experiment serve to identify the individual physical capacities of each student, including core physical qualities such as speed, strength, endurance, flexibility, and agility, and to assess the effectiveness of specialized training development. Therefore, this stage of the study constitutes an important source of information for systematically monitoring students' physical preparedness and for implementing an individualized approach in subsequent training sessions.

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